

Commonwealth of Kentucky
Division for Air Quality
PERMIT STATEMENT OF BASIS

Draft Conditional Major Permit No. F-04-035

EARTHGRAINS BAKING COMPANIES, Inc.

LONDON, KY 40741

April 21, 2005

ESMAIL HASSANPOUR, REVIEWER

SOURCE ID #: 21-125-00095

SOURCE AI #: 2571

ACTIVITY ID #: APE20040001

SOURCE DESCRIPTION:

Earthgrains Baking Companies, Inc. applied on August 18, 2004 to the Kentucky Division for Air Quality for a renewal of their source wide Conditional Major permit (F-00-001). The facility processes raw material and produces baked bread and buns. For bread making, the facility utilizes the continuous-dough process and a 4.2 mmBtu/hr natural gas- fired oven. To make buns, the facility uses a sponge-dough process and two (2) natural gas fired ovens, one 3.29 mmBtu/hr and one 4.23 mmBtu/hr.

EMISSION UNITS:

01 (EU-1)- Readco Bread Oven:

Description:

Natural Gas Fired Unit

Oven Rated Capacity: 4.2 mmBtu/hr

Process rate: 3.35 tons of bread/hr

Construction commenced: 1964

02 (EU-2)-Bun Oven 'A':

Description:

Natural Gas Fired Unit

Oven Rated Capacity: 3.29 mmBtu/hr

Process rate: 1.625 tons of buns/hr

Construction Commenced: 1973

03 (EU-3)-Bun Oven 'B':

Description:

Natural Gas Fired Unit

Oven Rated Capacity: 4.23 mmBtu/hr

Process Rate: 3.25 tons

Construction Commenced 1999

04 (EU-4)-Boiler #1 (Sellers)

Description:

Natural Gas Fired Unit
Boiler Rated Capacity: 4.18 mmBtu/hr
Construction Commenced 1984

05 (EU-5)-Boiler #2 (Superior)

Description:

Natural Gas Fired Unit
Boiler Rated Capacity: 4.18 mmBtu/hr
Construction Commenced 2003

Regulation not Applicable to Emission Units 01, 02, and 03:

401 KAR 61 KAR 61:020, Existing Process Operation, due to definition of process weight. "Process weight means the total weight of all materials introduced into any affected facility which may cause any emission of particular matter, but does not include liquid and gaseous fuels charged. Combustion air, or uncombined water." Since all particulate emissions were determined to be the result of gaseous fuel combustion in the ovens, therefore, this regulation does not apply.

Regulations Applicable to Emission Unit 04, and 05:

401 KAR 59:015, new indirect heat exchangers, applicable to an emissions unit with a capacity of less than 250 mmBtu/hr and commenced on or after April 9, 1972.

Regulations Applicable to Insignificant Units 1, 5 and 7:

401 KAR 63:010, Fugitive emissions and 401 KAR 61:020, Existing process operations.

COMMENTS:

Volatile organic compounds VOC(s) emissions, as measured by methods referenced in 401 KAR 50:015, Section 1, shall not exceed the respective limitations specified herein.

Compliance with annual emissions and processing limitations imposed pursuant to 401 KAR 52:030 Section (10), and contained in this permit, shall be based on emission and processing rates for any twelve (12) consecutive months.

In accordance with 401 KAR 52:030, Section (10), source wide emission of volatile organic compounds VOC(s) shall not equal or exceed 90 tons/year.

The permittee shall limit production rates of bread and buns so to ensure that source wide emissions of VOC(s) shall not equal or exceed 90 tons/year.

EMISSION AND OPERATING CAPS DESCRIPTION:

The source has the potential to be a major for VOC emissions (192.28). However, the source has requested to be classified as a Conditional Major source with a federally enforceable limit not to equal or exceed 90 tons per year for VOC.

MONITORING:

The permittee shall monitor amounts of all bread and buns produced and respective formula number. The permittee shall calculate and record the monthly VOC emissions. The VOC emissions from the operation of the bakery ovens shall be determined based on emission factors derived from the equation given in "Alternate Control Technology document for Bakery Oven Emissions" (EPA 453/R-92-017, December 1992).

$$\text{VOC E.F.} = 0.95Y_i + 0.195t_i - 0.5S - 0.86t_s + 1.90$$

Where

VOC E.F.	=	Emission factor in pounds of VOC per ton of bread baked
Y_i	=	Initial baker's percent of yeast to the nearest tenth of the percent
T_i	=	Total yeast action time in hours the nearest tenth of an hour (Fermentation time+ Floor time+proof time)
S	=	Final (Spike) baker's percent of yeast to the nearest tenth of percent
T_s	=	Spiking time in hours to the nearest tenth of an hour (Floor time+Final proof time)

RECORDKEEPING:

The permittee shall keep monthly records of bread and buns produced. The actual emissions for VOCs shall be calculated each month (tons per month) based upon the amount of bread and buns produced at the facility during that month. The permittee shall also keep records of twelve (12) months rolling total for VOC emissions. Record shall include the bread and buns formula number. These records shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality.

CREDIBLE EVIDENCE:

This permit contains provisions, which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with

applicable requirements. At the issuance of this permit, Kentucky has not incorporated these provisions in its air quality regulations.

Past Permit Summary:

Permit type	Log #	Complete Date	Issuance Date	Summary of Action
F-00-001	G101	4/19/1999	12/21/1999	Conditional Major
F-04-035	2571	11/5/2004		Conditional major